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Montana Department of Health and Environmental Sciences
MONTHLY ACTIVITIES REPORT OF THE AIR QUALITY BUREAU

March 1977

STATE DOCUMENTS
MR 877

1. Highlights

Work done on Poplar River and Kalispell studies.

Performed quality assurance testing as part of on-going quality assurance program.

Court hearing regarding open burning issue for counties of Lincoln, Lake, Flathead, and Sanders.

Finalizing contract with Department of State Lands on the ASARCO Troy project.

Review of Toxic Substance Control Act.

Review of Hoerner-Waldorf #3 lime kiln.

2. Ambient Air Quality Network

Standards Exceeded:

TSP*--Anders Res., Columbia Falls, 1 excur. Fed 24-hr std.

$SO_2$ --East Station, East Helena, 1 excur. MT 1-hr. std.
Cogswell Building, Helena, 1 excur. MT 1-hr. std.
Kennedy Park, E. Helena, 3 excur. Fed 3-hr. std.
Hill Ranch, E. Helena, 1 excur. Fed. 3-hr. std.
Water Tower, E. Helena, 1 excur. Fed 3-hr. std.
Kennedy Park, E. Helena, 5 excur. Fed. 24-hr. std.
Water Tower, E. Helena, 1 excur. Fed. 24-hr. std.

* Total Suspended Particulates

Air Stagnation Advisories:

No Air Stagnation Advisories were issued during March.

Laboratory Status:

Total determinations for the month: 297
Total samples for the month: 179

Developments:

Received new autoanalyzer for the determination of sulfate on hi-vol samples.

Routine maintenance and calibration of equipment done in state.

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3. Permits and Tax Credits

Construction Permits:

Application:
Peter Kiewit Sons' Co., Gallatin Co., asphalt hot mix plant
Meyer Construction Company, Lewis and Clark County, portable hot mix plant and portable gravel crushing plant
Pioneer Ready-Mix, Gallatin Co., portable gravel crushing plant and hot mix asphalt plant.
Hilde Construction Co., Inc. Teton County, portable gravel crushing plant
Pack Concrete Inc., Flathead County, portable asphalt hot mix plant
Mortensen Construction Co., Teton Co., portable gravel crushing plant
Mortensen Construction Co., Lewis and Clark Co., portable gravel crushing plant
Mortensen Construction Co., Chouteau Co., portable gravel crushing plant

Approved:
Empire Sand and Gravel, Carbon Co., portable gravel crushing plant
Peter Kiewit Sons' Co., Lewis and Clark Co., portable hot mix plant
Hilger Ore Milling, Hilger, crusher and concentrator
Dugdale Construction Co., Inc., Lewis and Clark Co., asphalt hot mix plant
Peter Kiewit Sons' Co., Gallatin Co., asphalt hot mix plant
Hilde Construction Co., Teton Co., portable gravel crushing plant
Meyer Construction Co., Lewis and Clark Co., portable hot mix plant and portable gravel crushing plant

Tax Credits:

The application from Anaconda for a tax reduction on the electric furnace, fluid bed roaster and concentrate handling facility is almost complete. The decision on the application should be made in April.

4. Variance Status

Current Variances:

Anaconda Aluminum Co., Columbia Falls, $F^-$ and particulate, expires 6/30/77
The Anaconda Co., Anaconda, $SO_2$, expires 6/30/77
ASARCO, Inc., East Helena, $SO_2$, expires 6/30/77

New or Renewed:

Anaconda's application for a variance from the visibility rule for the smelter has been scheduled for the June Board meeting.

Anaconda's application for a renewal of the variance from the particulate emission rule for the smelter has been scheduled for the June meeting. The need for this extension has disappeared since the last reverberatory furnace was shut down about March 7.

Anaconda's application for a variance from the particulate emission rule for the foundry at Anaconda has been scheduled for the June Board meeting.

5. Enforcement Action

Sulfur-in-fuel data submitted by Great Western Sugar which was a requirement of their fuel blending program during the last compaign indicates that the sulfur-in-fuel rule was violated. Additional information has been requested. A citation probably will be issued soon.

Citations:

Hoerner-Waldorf, Missoula, TRS #3 Recovery, S1400 (Permits, Construction and Operation of Equipment)
Hoerner-Waldorf, Missoula, Particulate #4 Recovery, S1400 and S1430 (Particulate Matter, Industrial Processes)
Decker Coal Co., Decker, mining operation in violation of rule S14040 (Ambient Air Quality Standards)
Del Conner Lumber Inc., Darby, tepee burner in violation of rule S14030 (Wood Waste Burners)

Notices of Violation:

None

Order for Corrective Action:

None

Court Actions:

None

6. Tepee Burner and Open Burning

The proposed changes in the open burning rule will be heard at the June 27 Board meeting.

Tepee Burner Status:

| | |
|---|---|
| No. at Start | 39 |
| New Starts | 0 |
| Shut Downs | 0 |
| No. at End | 39 |

Open Burning Permits:

| | | | |
|---|---|---|---|
| Kalispell Office | 349 | Sanders Co. | 39 |
| Cascade County | 31 | Yellowstone County | 309 |
| Lake County | 105 | Rest of State | 1158 |
| Missoula County | 379 | Total Permits | 2370 |

7. Source Tests Performed

Agency Source Tests:

None

Non-Agency Source Tests:

Observed NSPS source tests at Colstrip Unit No. 2, March 1 and 2.

Particulate emission tests of Conoco's F.C.C. unit by a company crew indicate non-compliance with state's interpretation of process weight rule. Additional tests will be made by state personnel.

8. Field Investigations

Colstrip Unit #2, visual observations, due to vapor plume, readings could not be taken
American Chemet, opacity observation, excessive emissions
Cyprus Industrial, Three Forks, plant inspection, in complaince
Kanta Products, Three Forks, plant inspection, running at 40%
Asarco, Inc., E. Helena, plant inspection
Plum Creek complex, Col. Falls, inspection, conference
Klingler Lumber, Kalispell, tepee burner inspection
C & C Plywood, Evergreen, documentation boiler cyclone, no violation
American Timber, Olney, tepee burner documentation, no violation
Ksanka Lumber, Fortine, tepee burner documentation, no violation
Kennedy Stevens, Eureka, inspection
Tobacco River Mill, Eureka, Mill building burned down, no action
Superior Building, Columbia Falls, conference re. burner operation
Asarco site, Bull Lake area, selecting sites for monitoring equipment
Superior Building, Columbia Falls, tepee burner operation
Akers Market, Kalispell, re. burning hours for incinerator
Pack and Co., Kalispell, conference re. permit application
Flathead Co. Landfill site, Kalispell, inspection of wood waste pile
Dupuis Mill, Polson, inspection of burning area
Superior Building, Columbia Falls, tepee burner operation
Amish Colony, West Kootenai, burning practice
Louisiana Pacific, Columbia Falls, documentation boiler, no violation
Stoltze Land and Lumber, Columbia Falls, tepee burner, in compliance
Anaconda Aluminum, Columbia Falls, reduction cells, meeting scheduled, no action
Plum Creek, Columfia Falls, boiler, in compliance
West Decker, coal loading facility and the E. Decker area, inspection
ASARCO smelter, Tacoma, Washington, tour of smelter
Anaconda Co., Anaconda, tour of baghouse
Del Conner Lumber, Darby tepee burner

9. Complaints

Cenex, Laurel, emissions from oil well flare, under investigation
Dept. of Highways, Miles City, emissions from asphalt batch plant, under investigation
American Chemet, E. Helena, black emissions, plant investigated
Earth Builders, Miles City, emission, under investigation

10. Data Processing Services

Ambient Data Summary:

Monthly report of February air quality data attached

Reviewed and made recommendations to laboratroy concerning statistics of blank samples for hi-vol metal determinations

Reviewed statistical comments made by John Berg of Cenex. Have completed first draft of comments.

Emissions Inventory:

One source update was received. Updates were also performed to the computer system.

Prevention of Significant Deterioration:

No significant activities this month.

Modeling:

Additional modeling and meetings were held on the Billings $SO_2$ AQMA. Analysis methods were reviewed by staff and EPA and comments and suggestions will be incorporated in the work during April.

Work also performed on the Great Falls transportation plan. Data was gathered and reduction was started on traffic data.

11. Environmental Impact Statements

Agency Impact Determinations:

None

Other Agency EIS's Reviewed:

Changes in final EIS for the East Decker and North Extension Mines at Decker, Montana, received from Department of State Lands. Decision on construction permit for the coal load-out facility at East Decker Mine is dependent on information in that EIS and will be made soon.

12. Status of Studies, Contracts and Reports

Poplar River Meteorological Study - all instruments installed except one hi-vol

Kalispell Meteorological Study - installed 2 instuments

ASARCO, Troy background study - contract with Department of State Lands signed, reports due in November 77 and March 78.

Reports on $SO_2$ problems at the Anaconda smelter received from Anaconda Company.

Work continued in S. E. Coal Area; Billings $SO_2$, CO and TSP; and Missoula TSP AQMA's. Butte-Anaconda TSP AQMA has not been begun.

Health Study Phase I - The Bureau of Records and Statistics finished this portion of the study and sent the computer cards to Research Triangle Park.

Health Study Phase II - EPA has approved funding for this portion of the study.

HB 250 - The morbidity-air pollution bill was passed by the legislature.

13. Schools and Training

Trained new personnel for Billings-Colstrip job.

Four day EPA course on control of gaseous emissions in Portland from February 28 through March 3.

14. Public Hearings and Meetings

Public Hearings:

March 25, 1977, update report on Stauffer Chemical was given to the Board of Health.

Hearing on the health study bill (HB 250) March 10, 1977

Open burning hearing in Libby, Montana, March 31, 1977

Meetings Attended:

Air Shed Meeting, Anaconda
Anaconda modeling study, Anaconda
Don Henderson, EPA, Billings AQMA $SO_2$ modeling
Plum Creek personnel, emission points in complex, Columbia Falls
Federal Highway rep. and Water Quality Bureau staff, road construction at Big Creek Ranger Station
Fire Warden for BN re. right of way burning in northwest Montana
AQB staff and Lincoln County sanitarian, select sites for monitoring equipment.
Town of Big Arm officials re. burning of weeds
Flathead Refuse Disposal District Director re. burning at Olney wood waste pile

Department Staff, re. refinery $SO_2$, Helena
S. E. Coal AQMP, Miles City
S. E. Coal, AQMP, 6 counties
Public Information Program, Helena
Land Use Planning, Forsythe
Environmental Impact Group, Highway Dept. Helena
AAC Auditor re. variance filing fee expenditures, Helena
EPA, re. Kalispell TSP, Libby TSP, continuous monitoring regulation, Cascade County program, Helena
Anaconda Company rep., Helena
EPA, NOV issued to the Anaconda Company, Helena
EPA, $SO_2$ modeling in Billings area, Helena

Intra-Staff Meetings:

Anaconda modeling study, Helena
Billings $SO_2$, Helena
AQB staff meetings
ASARCO Troy project, Kalispell TSP, source compliance, Helena
Toxic Substance Control Act, Helena
EPA's FY 78 draft program guidance
Hoerner Waldorf citations, Helena

15. Public Information Requests

Rules - 4
Clean Air Act - 3
General Information - 6

16. Fiscal Status

Grants Received:

None

Monthly Expenditures:

| Program | Budget | Expenditures March | Expenditures Year to Date | Funds Remaining |
|---|---|---|---|---|
| 0630 | 449,576 | 57,571 | 314,907 | 139,269 |
| 0631 | 74,400 | 14,250 | 32,145 | 42,255 |
| 0633 | 82,635 | 7,825 | 49,080 | 11,419 |
| 0681 | 76,300 | 13,415 | 46,487 | 29,813 |
| 0637 | 101,200 | 5,091 | 75,295 | 25,905 |

17. Other

A search was made for copper smelter consultants to assist us. Two proposal requests were sent (Pedco and P.E.S.).

# MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

## Monthly Summary of Air Quality Data

February 19 7

Pollutant: Total Suspended Particulate Units: Mg/cu mtr.

| AQCR | AREA Site Location | HIGH READING Current Month | HIGH READING Year-to-Date | HIGH READING Running Year | ARITHMETIC AVER. Year-to-Date | ARITHMETIC AVER. No. of Hours of Data | Comments |
|---|---|---|---|---|---|---|---|
| 140 | Morton Res., Big Horn Co. | 148 | 148 | 208 | 13.4 | 12 | |
| | Worden Ranch Big Horn Co. | 15 | 15 | 146 | 9.1 | 12 | |
| | Lockwood School Billings | 109 | 109 | 141 | 39.4 | 12 | |
| | KGHL Billings | 74 | 74 | 154 | 28.6 | 12 | |
| | City Hall Billings | 151 | 151 | 151 | 63.2 | 12 | 1 excur. Fed Pri. Std. |
| | Grand Ave. Sch. Billings | 52 | 74 | 135 | 35.3 | 12 | |
| | Burnstead Drive Billings | 467 | 467 | 1117 | 154.3 | 6 | 1 excur. Fed. Sec. Std. |
| | Laurel Jr. High Laurel | 39 | 39 | 108 | 29.1 | 12 | |
| 141 | Hospital Roof Great Falls | 78 | 129 | 129 | 38.2 | 12 | |
| | Fire Sta. #1 Great Falls | 52 | 869 | 869 | 97.4 | 12 | |
| 142 | Stl. Bow Gen Hos. Butte | 63 | 210 | 210 | 89.4 | 12 | 1 excur. MT Pri. Std. |
| | Atkins Res. Butte | 53 | 130 | 182 | 54.6 | 12 | |
| | Richer Res. Butte | 17 | 46 | 46 | 21.8 | 12 | |
| | Hiway Jct. Anaconda | 121 | 121 | 250 | 43.9 | 12 | |
| | McKinley Res. Granite Co. | 37 | 90 | 147 | 35.0 | 12 | |

Pollutant: Total Suspended Particulate Units: Mg/cu mtr.

| AQCR | AREA Site Location | HIGH READING Current Month | HIGH READING Year-to-Date | HIGH READING Running Year | ARITHMETIC AVER. Year-to-Date | ARITHMETIC AVER. No. of Hours of Data | Comments |
|---|---|---|---|---|---|---|---|
| 142 | Microwave Jefferson Co. | 14 | 52 | 66 | 18.0 | 12 | |
| | 215 Pacific St. East Helena | 149 | 149 | 187 | 68.8 | 12 | |
| | Tierney Res. Silver Bow Co. | 20 | 64 | 64 | 35.2 | 12 | |
| 143 | Littlefield Hill Miles City | 27 | 27 | 87 | 11.4 | 11 | |
| | Glendive Dawson Co. | 18 | 102 | 102 | 25.1 | 11 | |
| | Ft. Peck McCone Co. | 40 | 91 | 91 | 27.3 | 11 | |
| | Broadus Powder Riv. Co. | 51 | 51 | 62 | 14.3 | 12 | |
| | BN Site Colstrip | ---- | ---- | *** | ---- | ---- | |
| | McRae Site Colstrip | ---- | ---- | *** | ---- | ---- | |
| 144 | High School Columbia Falls | 172 | 172 | 294 | 68.5 | 11 | |
| | Courthouse Missoula | 147 | 295 | 342 | 134.9 | 12 | |
| | J. B. Field Missoula Co. | 73 | 140 | 214 | 55.4 | 12 | |
| | Frenchtown Missoula Co. | 165 | 165 | 165 | 49.1 | 12 | |

Pollutants: Misc. Continuous Data Units: parts per million

| AQCR | AREA Site Location | HIGH READING Current Month | HIGH READING Year-to-Date | HIGH READING Running Year | ARITHMETIC AVER. Year-to-Date | ARITHMETIC AVER. No. of Hours of Data | Comments |
|---|---|---|---|---|---|---|---|
| | Carbon Monoxide | | | | | | |
| 140 | 11th & S. 27th Billings | ---- | ---- | *** | ---- | ---- | |
| | 27th & Montana Billings | ---- | ---- | *** | ---- | ---- | |
| 144 | Malfunction Jct. Missoula | 1.75 | 1.75 | 1.75 | .496 | 2 | |
| | Hydrocarbons | | | | | | |
| 140 | 27th & Montana Billings | ---- | ---- | *** | ---- | ---- | |
| 143 | BN Site Colstrip | ---- | ---- | * | ---- | ---- | |
| | Meth Hydrocarbons | | | | | | |
| 143 | BN Site Colstrip | ---- | ---- | * | ---- | ---- | |
| | Non-Meth HC | | | | | | |
| 143 | BN Site Colstrip | 0.50 | 0.50 | 2.00 | 0.125 | 11 | |
| | Nitric Oxide | | | | | | |
| 143 | BN Site Colstrip | ---- | ---- | * | ---- | ---- | |
| 142 | Nitrogen Dioxide Alpine Mt. Butte | 0.08 | 0.08 | 0.08 | 0.022 | 1 | |

Pollutants: Misc. Continuous Data Units: parts per million

| AQCR | AREA Site Location | HIGH READING Current Month | HIGH READING Year-to-Date | HIGH READING Running Year | ARITHMETIC AVER. Year-to-Date | ARITHMETIC AVER. No. of Hours of Data | Comments |
|---|---|---|---|---|---|---|---|
| 143 | BN Site Colstrip | ---- | ---- | * | ---- | ---- | |
| 144 | 27th & Montana Billings | ---- | ---- | *** | ---- | ---- | |
| | Oxides of Nitrogen | | | | | | |
| 143 | BN Site Colstrip | ---- | ---- | * | ---- | ---- | |
| | Ozone | | | | | | |
| 140 | 27th & Montana Billings | 0.04 | 0.04 | 0.10 | .015 | 12 | |
| 143 | BN Site Colstrip | ---- | ---- | * | ---- | ---- | |
| | Sulfur Dioxide | | | | | | |
| 140 | 27th & Montana Billings | 0.01 | 0.09 | 0.15 | .002 | 12 | |
| | Laurel Farm Billings | 0.55 | 0.61 | 0.80 | .078 | | 4 excur. Fed Pri. Std. |
| | Laurel Water Plt Billings | ---- | ---- | *** | ---- | ---- | |
| 142 | East Stack East Helena | 0.25 | 0.25 | 0.44 | .012 | 12 | 1 Excur. MT 3-hr std. |
| | Microwave E. Helena | 0.18 | 0.22 | 1.08 | .011 | 12 | |
| | Saddle Mountain E. Helena | 0.16 | 0.48 | 0.56 | .015 | 12 | |
| | C-Hill Anaconda | 0.22 | 1.00 | 2.54 | .005 | 12 | |

* Equipment down

*** Data not available at time of report

February 1977

Pollutant: Misc. Continuous Data
Units: parts per million

| AQCR | AREA Site Location | HIGH READING Current Month | Year-to-Date | Running Year | ARITHMETIC AVER. Year-to-Date | No. of Qtrs. of Data | Comments |
|---|---|---|---|---|---|---|---|
| | Sulfur Dioxide | | | | | | |
| 142 | Hiway Jct. Anaconda | 1.33 | 1.46 | 1.58 | .035 | 12 | 5 excur. Fed Pri. 9 excur. Fed Sec. |
| | Mill Creek Anaconda | 0.88 | 0.88 | 1.36 | .017 | 12 | 1 excur. Fed Pri. 1 excur. Fed Sec. |
| | Post Office Anaconda | 0.56 | 0.56 | 1.02 | .005 | 12 | 2 excur. MT 1-hour std. |
| | Cogswell Bldg. Helena | .40 | .40 | .40 | .006 | 12 | 1 excur. MT 1-hour std. |
| 143 | BN Site Colstrip | ---------- | ---------- | ----*---- | ---------- | ---------- | |

Pollutant: Misc. Indicators
Units:

| AQCR | AREA Site Location | HIGH READING Current Month | Year-to-Date | Running Year | ARITHMETIC AVER. Year-to-Date | No. of Qtrs. of Data | Comments |
|---|---|---|---|---|---|---|---|
| | Fluoride Papers | mg/sq. cm/30 days | | | | | |
| 142 | Hollowbush Powell County | 0.060 | 0.060 | 0.200 | 0.050 | 3 | |
| | Lahman's Powell County | 0.040 | 0.040 | 0.080 | 0.035 | 3 | |
| | N. Ac. Hwy. Powell Co. | 0.050 | 0.050 | 0.180 | 0.050 | 3 | |
| | Ramsay West Sil. Bow Co. | 1.730 | 1.770 | 1.770 | 1.750 | 2 | |
| | E&E Stauffer Sil. Bow Co. | 3.050 | 4.170 | 7.870 | 3.610 | 2 | |
| 143 | BN Site Colstrip | ---------- | ---------- | ----*---- | ---------- | ---------- | |
| | McRae Site Colstrip | ---------- | ---------- | ----*---- | ---------- | ---------- | |
| 144 | Dehlboms Mt. Box Flathead Co. | 0.720 | 0.720 | 1.710 | 0.535 | 2 | |
| | Teakettle #1 Flathead Co. | 1.740 | 1.740 | 3.520 | 1.740 | 2 | |
| | Glac. Park #1 Glac. Nat. Pk | 0.330 | 0.330 | 0.580 | 0.285 | 2 | |
| | Glac. Park #2 Glac. Nat. Pk. | 0.480 | 0.480 | 0.580 | 0.420 | 2 | |
| | Fluoride Plates | sg/sq. cm/30 days | | | | | |
| 142 | Durant Canyon Deer Lodge Co. N. Ac. Hwy. Powell County | 2.820 | 3.470 | 3.470 | 3.145 | 2 | |
| | NW on Hill Powell County | ---------- | ---------- | ---***--- | ---------- | ---------- | |

Pollutant: Misc. Indicators
Units

| AQCR | AREA Site Location | HIGH READING Current Month | Year-to-Date | Running Year | ARITHMETIC AVER. Year-to-Date | No. of Qtrs. of Data | Comments |
|---|---|---|---|---|---|---|---|
| | Fluoride Plates (Cont.) | | | | | | |
| 142 | Ramsay West Sil. Bow Co. | 1.610 | 1.860 | 2.170 | 1.735 | 2 | |
| | E&E Stauffer Sil. Bow Co. | 3.990 | 4.920 | 10.92 | 4.445 | 2 | |
| 143 | BN Site Colstrip | ---------- | ---------- | ---***--- | ---------- | ---------- | |
| | McRae Site Colstrip | ---------- | ---------- | ---***--- | ---------- | ---------- | |
| 144 | Teakettle #1 Flathead Co. | 0.780 | 0.780 | 4.830 | 0.780 | 1 | |
| | Teakettle #8 Flathead Co. | 0.600 | 0.600 | 0.750 | 0.485 | 2 | |
| | Anaconda South Flathead Co. | 1.410 | 5.00 | 8.820 | 3.205 | 2 | |
| | Glac. Park #1 Glac. Nat. Pk. | 0.610 | 0.610 | 0.720 | 0.530 | 2 | |
| | Glac. Park #2 Glac. Nat. Pk. | 0.710 | 0.710 | 0.810 | 0.655 | 2 | |
| | Rainfall - Tons/sq. mi. | | | | | | |
| 143 | Fountain States Cascade Co. | 22.09 | 48.15 | 48.15 | 35.12 | 2 | |
| | Hospital Roof Cascade Co. | 12.23 | 12.23 | 13.58 | 7.99 | 2 | |
| | Fire Sta. #1 Cascade Co. | ---------- | ---------- | ---***--- | ---------- | ---------- | |

Pollutant: Misc. Indicators
Units:

| AQCR | AREA Site Location | HIGH READING Current Month | Year-to-Date | Running Year | ARITHMETIC AVER. Year-to-Date | No. of Qtrs. of Data | Comments |
|---|---|---|---|---|---|---|---|
| | Sulfation Rate - | mlgm $O_3$/100 sq. cm. | | | | | |
| 140 | S/8 Mi. NE Coop Billings | 2.440 | 4.380 | 4.800 | 3.410 | 2 | |
| | East of Laurel Billings | 1.760 | 3.220 | 3.620 | 2.490 | 2 | |
| | Hi-Ball Trucking Billings | 1.190 | 1.190 | 1.410 | 1.185 | 2 | |
| 141 | Stock Car Track Great Falls | 0.489 | 0.607 | 0.607 | 0.548 | 2 | |
| | Phillips Ref. E Great Falls | 0.575 | 0.575 | 0.575 | 0.415 | 2 | |
| | Phillips Ref N 1 Great Falls | 0.629 | 0.629 | 0.629 | 0.629 | 1 | |
| 142 | Microwave East Helena | 0.250 | 0.650 | 0.650 | 0.450 | 2 | |
| | Hiway Jct. Anaconda | 0.980 | 1.600 | 2.570 | 1.290 | 2 | |
| | C-Hill Anaconda | 0.230 | 0.350 | 1.040 | 0.290 | 2 | |
| 143 | BN Site Colstrip | ---------- | ---------- | ---***--- | ---------- | ---------- | |
| | McRae Site Colstrip | ---------- | ---------- | ---***--- | ---------- | ---------- | |

* Equipment down
*** Data not available at time of report

# MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

## MONTHLY SUMMARY OF AIR QUALITY DATA

February 1977

Pollutant: Misc. Bubbler Data  Units: parts per million

| AREA | | HIGH READING | | | ARITHMETIC AVER. | | |
|---|---|---|---|---|---|---|---|
| AQCR | Site Location | Current Month | Year-to-Date | Running Year | Year-to-Date | No. of Mons. of Data | Comments |
| | Sulfur Dioxide | | | | | | |
| 140 | Lockwood Sch. Billings | 0.0253 | 0.0431 | 0.2012 | 0.0123 | 12 | |
| | S/S mi. NE Coop Billings | ---- | ---- | ***-- | ---- | ---- | |
| 143 | Scobey | ---- | ---- | ***-- | ---- | ---- | |
| | Daniels Co. | | | | | | |
| | Ft. Peck | ---- | ---- | ***-- | ---- | ---- | |
| | McCone Co. | | | | | | |
| | Lame Deer | ---- | ---- | *---- | ---- | ---- | |
| | Rosebud Co. | | | | | | |
| | BN Site | ---- | ---- | *---- | ---- | ---- | |
| | Rosebud Co. | | | | | | |
| | McRae Site | ---- | ---- | *---- | ---- | ---- | |
| | Rosebud Co. | | | | | | |
| | Nitrogen Dioxide | | | | | | |
| 143 | Scobey | ---- | ---- | ***-- | ---- | ---- | |
| | Daniels Co. | | | | | | |
| | Ft. Peck | ---- | ---- | ***-- | ---- | ---- | |
| | McCone Co. | | | | | | |
| | Lame Deer | ---- | ---- | *---- | ---- | ---- | |
| | Rosebud Co. | | | | | | |
| | BN Site | ---- | ---- | *---- | ---- | ---- | |
| | Rosebud Co. | | | | | | |
| | McRae Site | 0.50 | 0.50 | 1.50 | .0045 | 12 | |
| | Rosebud Co. | | | | | | |

Pollutant:  Units:

| AREA | | HIGH READING | | | ARITHMETIC AVER. | | |
|---|---|---|---|---|---|---|---|
| AQCR | Site Location | Current Month | Year-to-Date | Running Year | Year-to-Date | No. of Mons. of Data | Comments |

Pollutant:  Units:

| AREA | | HIGH READING | | | ARITHMETIC AVER. | | |
|---|---|---|---|---|---|---|---|
| AQCR | Site Location | Current Month | Year-to-Date | Running Year | Year-to-Date | No. of Mons. of Data | Comments |

Pollutant:  Units:

| AREA | | HIGH READING | | | ARITHMETIC AVER. | | |
|---|---|---|---|---|---|---|---|
| AQCR | Site Location | Current Month | Year-to-Date | Running Year | Year-to-Date | No. of Mons. of Data | Comments |